



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,831	02/20/2004	Warren Carl Couvillion JR.	109208.04	5478
25944	7590	10/18/2007		
OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850			EXAMINER RICHMAN, GLENN E	
			ART UNIT 3764	PAPER NUMBER
			MAIL DATE 10/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/781,831

Applicant(s)

COUVILLION ET AL.

Examiner

Glenn Richman

Art Unit

3764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 14-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-13 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date
:2/20/04,3/31/04,2/9/05,1/25/07

DETAILED ACTION

Election/Restrictions

Claims 14-34 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 8/1/07.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3,5-8,10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein in view of Openiano.

Epstein discloses a pressure-sensing mat 103 including a base layer fig. 7.

Epstein does not disclose a plurality of pressure sensing elements formed over the base layer.

Openiano discloses a plurality of pressure sensing elements formed over the base layer fig. 9.

It would have been obvious to use Openiano's disclose a plurality of pressure sensing elements, with Epstein, as it is well known as taught by Openiano to use disclose a plurality of pressure sensing elements, for indicating a signal of a user, and as Epstein uses a tracking ball for indicating the presence of user.

Openiano further disclose a top layer formed over the plurality of pressure-sensing elements fig. 9.

Epstein further disclose an input interface formed between the base layer and the top layer fig. 7.

Openiano discloses the plurality of pressure sensing elements output signals indicative of pressure applied to the top layer col 7, lines 37-64.

Epstein disclose a base structure coupled to the pressure-sensing mat fig. 7, the base structure being fixed in a first position but freely moveable in a second position fig. 7,abstract, the base structure moves the pressure-sensing mat in all directions abstract the pressure-sensing mat allows the user to move in one or more of at least a forward moving position, a backward moving position, a left side moving position, a right side moving position and a position therebetween col. 2, lines 47 – et seq.

Openiano further discloses a housing that retains the pressure-sensing mat and the base.

Epstein further discloses a plurality of casters disposed between the housing and the pressure-sensing mat 703, the casters allowing the pressure- sensing mat to move in the housing,

Openiano further discloses the plurality of pressure-sensing elements make up a grid. 9,

Epstein further discloses the base layer comprises a semi-rigid material col. 3, lines 7 – et seq., the base layer comprises plastic col. 3, lines 7 – et seq., the top layer

comprises rubber col. 3, lines 39 – et seq, a virtual reality system comprising the locomotion interface of claim 1 abstract.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein in view of Openiano and Butterfield (6135928).

Epstein and Openiano do not disclose the input interface comprises one or more radio-frequency communication interfaces.

Butterfield discloses an input interface comprises one or more radio-frequency communication interfaces col. 5, lines 59 – et seq.

It would have been obvious to use Butterfield's radio-frequency communication interface with Epstein, as it is well known in the art, as disclosed by Butterfield, to use radio-frequency communication interface, for input signals indicative of a user on a sensing device.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Epstein and Openiano in view of O'Heir.

Openiano does not disclose the plurality of pressure- sensing elements comprise force sensitive resistors.

O'Heir discloses a plurality of pressure- sensing elements comprise force sensitive resistors (col. 4, lines 34-41).

It would have been obvious to use O'Heir's force sensitive resistors, with Openiano, as it is well known to use force sensitive resistors, as taught by O'Heir, for sensing a user in a virtual reality system.


Allowable Subject Matter

Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn Richman whose telephone number is 571-272-4981. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Glenn Richman
Primary Examiner
Art Unit 3764